

ABSTRACT

1 A method and apparatus for delivering a
2 medicine to a patient via the patient's respiratory
3 system with control and efficiency. A nebulization
4 catheter is positioned in the patient's respiratory
5 system so that a distal end of the nebulization catheter
6 is in the respiratory system and a proximal end is
7 outside the body. In a first aspect, the nebulization
8 catheter may be used in conjunction with an endotracheal
9 tube and preferably is removable from the endotracheal
10 tube. The nebulization catheter conveys medicine in
11 liquid form to the distal end at which location the
12 medicine is nebulized by a pressurized gas or other
13 nebulizing mechanism. The nebulized medicine is conveyed
14 to the patient's lungs by the patient's respiration which
15 may be assisted by a ventilator. By producing the
16 aerosol of the liquid medicine at a location inside the
17 patient's respiratory system, the nebulizing catheter
18 provides for increased efficiency and control of the
19 dosage of medicine being delivered. In further aspects
20 of the nebulizing catheter apparatus and method,
21 alternative tip constructions, flow pulsation patterns,
22 centering devices, sensing devices, and aspiration
23 features afford greater efficiency and control of
24 aerosolized medicine dosage delivery.
25